

Washington, D.C. 20505

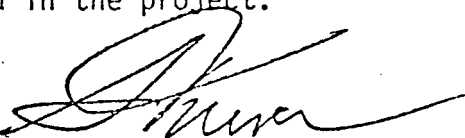
2 November 1978

MEMORANDUM FOR: Assistant to the President
for National Security Affairs

SUBJECT: Soviet Defense Budget

1. Attached is an analysis entitled "Soviet Allocation of Defense Resources to Selected Geographic Areas and Roles." It responds to your request, made on behalf of the Special Coordination Committee, dated 24 August 1978. As requested, it was prepared by the Central Intelligence Agency in collaboration with the Department of Defense.

2. In accordance with the sensitivity of this and other related inquiries, we are limiting distribution of this analysis to SCC principals and those immediately involved in the project.



STANSFIELD TURNER

Attachment

cc: The Vice President
The Secretary of State
The Secretary of Defense
The Director, Arms Control
and Disarmament Agency
The Chairman, Joint Chiefs of Staff

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NFAC #4004-7071

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SP - 265/78

SUBJECT: Soviet Defense Budget

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Soviet Allocation of Defense Resources to
Selected Geographic Areas and Roles

Summary

This study was prepared in response to a request from the Assistant to the President for National Security Affairs. It covers two areas. First, it analyzes the allocation of Soviet defense resources to three specific activities: forces opposite China, homeland air defense, and control of Eastern Europe. It estimates the cost in constant rubles of these activities as an indication of Soviet priorities. It also estimates what it would cost in constant dollars to reproduce these activities in the United States to measure their magnitude for comparison with US defense activities. Second, the study discusses briefly several other aspects of Soviet defense activities which display significant differences from US practices.

For forces which we believe have a primary mission against China, we estimate that during the 1973-1977 period the Soviets allocated about 12 percent of total ruble spending for defense. We estimate that the dollar cost of reproducing these forces in the United States averaged some \$18 billion a year, about 15 percent of the estimated dollar cost of total Soviet defense activities.

For procurement and operation of homeland air defense forces, we estimate that the Soviets allocated about 7 percent of total defense spending in rubles over the past five years. The estimated average annual dollar cost of these activities was about \$8 billion--over 6 percent of the dollar cost of total defense activities.* (We are unable to assess with confidence the costs of Soviet research, development, testing, and evaluation (RDT&E) programs for air defense forces.) About 20 percent of homeland air defense resources went for air defense against China and are also included in our estimate of resources devoted to forces opposite China.

**These estimates are based on a broader definition than the one used in the US Defense Planning and Programming Categories (DPPC). Under the DPPC definition, Soviet air defense accounted for about 5 percent of ruble defense spending and the estimated dollar cost is about \$5 billion--less than 5 percent of the cost of total defense activities.*

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For control of Eastern Europe, we cannot provide a quantitative estimate. However, we believe that the proportion of Soviet defense resources devoted to this activity is very small.

Soviet forces stationed in Eastern Europe (and those in the Western USSR also) are among many factors contributing to Soviet control. However, evidence on Soviet plans for war in Central Europe indicates that the present level and composition of these forces are dictated almost exclusively by requirements for wartime operations against NATO. The Soviets plan to use all of their forces now stationed in Eastern Europe against NATO in the opening stages of a war. Units passing through Eastern Europe from the USSR would be responsible--together with non-Soviet Warsaw Pact Forces--for safe-guarding Soviet lines of communication, and might be diverted for control of Eastern Europe if necessary. If a major requirement for control operations arose, however, the Soviets would most likely employ reserve forces from among those mobilized in the USSR. Consequently, we believe that any current Soviet defense expenditures arising from the requirement for control, as such, are quite small--perhaps some portion of spending for training of reservists and for stockpiling equipment for mobilization forces. The contribution which Soviet military forces make to control in Eastern Europe entails little, if any, cost over and above that associated with maintaining an adequate military posture against NATO.

There are other Soviet defense activities that arise from requirements or philosophies different from those of the United States. These include an extensive Soviet civil defense program, a large force of Border Guards and Internal Security Troops and a Soviet practice of using military personnel for functions that in the United States would be carried out by civilians. The data presented in this study on the costs of Soviet defense activities exclude most civil defense costs because some of these costs do not fall under the US definition of defense activities and we lack confident estimates for others. The estimates also exclude the costs of Internal Security Troops because these troops have functions which the US would not consider related to national defense. The data include the costs of Border Guards because these forces have military functions. The data are not affected by differences in the mix of military and civilian personnel because they include the costs of defense activities regardless of who carries them out, and they exclude the costs of activities considered not to be defense in the United States.

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The resource allocations discussed above took place in the context of a general increase in Soviet defense spending. Over the past five years, total Soviet defense spending in rubles has grown at an average annual rate of 4 to 5 percent. The estimated dollar cost of total Soviet defense activities has grown at an average annual rate of about 3 percent and exceeded total US defense outlays by about 35 percent over the 1973-1977 period.

The resources allocated by the Soviets to forces opposite China and to homeland air defense are numerically equal to about two-thirds of this difference. Direct comparison of total US defense spending with the cost of Soviet defense activities excluding these two categories, however, does not provide a balanced measure of defense resource allocation. It does not account for the flexibility with which the Soviets can redeploy some of their forces or for categories of US defense spending which have no direct Soviet equivalent.

The table on the following page summarizes our findings.

Estimated Soviet Allocation of Defense Resources toSelected Geographic Areas and Roles(Annual average for the years 1973-1977) 1/

	<u>In constant dollars</u>		<u>In constant rubles</u>	
	<u>Billion</u>	<u>Percent</u>	<u>Billion</u>	<u>Percent</u>
	<u>1977 dollars</u>	<u>of total</u>	<u>1970 rubles</u>	<u>of total</u>
Procurement and Operating Expenditures for Forces Opposite China	18	.15	6	12
Procurement and Operating Expenditures for Homeland Air Defense <u>2/</u>	8(5)	6(4)	3(3)	7(5)
Subtotal <u>3/</u>	24(22)	20(18)	9(8)	18(17)
Expenditures for Control in Eastern Europe	----- Not quantifiable; probably very small -----			
All Other Procurement and Operating Expenses	81(83)	66(68)	29(30)	59(60)
Expenditures for Military RDT&E <u>4/</u>	18	15	11	23
Total	123	100	49	100

1/ All figures are rounded to the nearest billion or percent.2/ Data for homeland air defense exclude RDT&E. Figures in parentheses correspond to the air defense mission category in US defense accounts. See page 5.3/ About 20 percent of the resources for homeland air defense were for defense against Chinese air attack, and are also included under forces opposite China. The subtotal figures in this line eliminate this double-counting.4/ We are unable to allocate RDT&E resources with confidence among missions. We believe, however, that the amount of Soviet RDT&E activity directed specifically against China is negligible and have included none in our estimate of resources for forces opposite China.

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Preface

Purpose and Scope

This study was prepared in response to a request from the Assistant to the President for National Security Affairs. It covers two areas. First, it analyzes the allocation of Soviet defense resources to three specific activities: forces opposite China, homeland air defense, and control of Eastern Europe. Second, the study discusses briefly several other aspects of Soviet defense activities which display significant differences from US practices.

Derivation and Uses of Defense Spending Estimates

We derive our estimates of Soviet defense spending from the "direct costing" of the various forces and activities that make up the Soviet defense program for each year. The costs of these elements, added together, yield figures for total defense spending and its major components.

Our estimates of the Soviet resource commitment to defense are presented in two measures--rubles and dollars. Both have been calculated in constant prices so that they reflect real changes rather than the effects of inflation. The ruble estimates reflect our understanding of the cost of military equipment and programs in the USSR. Ruble estimates are useful for analysis of the economic impact of Soviet defense programs, the resource choices confronting Soviet planners, and the relative priorities they assign to the forces and activities that make up the defense effort. Our dollar estimates reflect the hypothetical cost of reproducing Soviet defense activities in the United States. Because they are in familiar terms, they give the reader a general picture of the magnitude of the Soviet effort and are useful for comparison with data on US spending for similar programs.

Both the ruble and the dollar estimates are measures of the annual flow of resources to Soviet defense activities and

This study was prepared by the Central Intelligence Agency in collaboration with the Department of Defense. Comments and questions are welcome, and may be directed to [redacted] the Office of Strategic Research, CIA

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do not measure fully the size, composition or military effectiveness of the Soviet forces.

We present our estimates in two ways: in terms of absolute magnitudes and in percentages that indicate shares of total resources allocated to defense. The percentage shares differ slightly between the ruble and the dollar estimates because the components of the Soviet defense effort have different relative prices in the two currencies.

Both the ruble and the dollar estimates of resource flows are subject to uncertainty. We have more confidence in the estimates of the total resources allocated to defense than in our estimates of allocations for the component programs. We believe that the overall dollar cost estimate for Soviet defense activities is unlikely to be in error by more than 15 percent. We cannot quantify the uncertainty in the ruble estimate, but independent intelligence reports have corroborated our estimate of total spending. It is also consistent with our analysis of published Soviet economic data. In this paper, we have noted those areas in which the uncertainty is particularly acute.

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Soviet Allocation of Defense Resources to
Selected Geographic Areas and Roles

Our analysis of the allocation of Soviet defense resources by geographic area and combat role is based on our best judgments about the primary targets and missions of selected Soviet Forces. These judgments are derived from evidence of the geographic deployments of the forces, the technical characteristics of Soviet weapons, and indications of Soviet war plans. We estimate the procurement and operating expenditures for the forces themselves on the basis of their manpower strengths, equipment holdings and activity levels. We estimate expenditures for support activities directly attributable to specific forces in proportion to the share which these forces comprise in the Soviet order of battle. We allocate the costs of general support activities that cannot be attributed directly to the forces by prorating them on the basis of the costs which we can allocate directly. In most cases, we cannot allocate research, development, testing and evaluation (RDT&E) expenditures among geographic areas and roles. However, we can identify certain sets of Soviet defense activities to which no RDT&E costs should be attributed because these activities have little impact on Soviet military research and development programs.

Allocations for Forces Opposite China

The Soviets maintain substantial military forces in the Far East. Most of the impetus for the buildup of these forces in recent years has been the threat the Soviets perceive from China. This paper defines selected Soviet forces in the Far East as having primary missions against China during the 1973-1977 period. These include:

- all ground and tactical air forces in the four Eastern military districts,
- peripheral attack bombers in the Transbaykal Military District,
- G- and H-class ballistic missile submarines in the Pacific Fleet,
- all strategic air defense forces within 200 miles of the Chinese border,
- the SS-20 IRBMs targeted against China.

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During the period the Soviets operated 190 SS-11 ICBMs in launchers oriented so that they could cover targets in Asia as well as in the United States. We have not included these SS-11s as having a primary mission against China. If we were to include them, they would raise the percentage of Soviet defense resources directed against China by less than one percent. Further, although Soviet heavy bombers and some ballistic missile submarines are capable of attacking China, we have judged the United States to be their primary target and have omitted them from our totals for forces opposite China.

We have also omitted costs for general purpose naval forces in the Soviet Pacific Fleet. We believe that the size and composition of the fleet has been dictated primarily by the threat which the Soviets perceive from western naval forces in the Pacific and that expenditures for the Pacific Fleet would not have been substantially different if there had been no Chinese threat. The Chinese navy is principally a coastal defense force and poses little threat to Soviet naval forces. Moreover, Soviet naval operations in a war with China probably would be quite limited.

Over the 1973-1977 period, the Soviets allocated some 12 percent of total ruble defense spending to procurement and operation of the forces which we have identified as oriented toward China. In dollar cost terms, this allocation averaged some \$18 billion, about 15 percent of the total estimated dollar cost of Soviet defense activities. These data do not include any RDT&E resources. We believe that the portion of Soviet military RDT&E directed specifically against China is negligible and that therefore Soviet RDT&E spending would have been about the same even without a threat from China.

Figure 1 shows that the Soviet resources committed to procuring and operating forces against China over the past ten years--the period during which the bulk of the buildup took place--have grown rapidly. They were nearly 15 percent of the total defense resource flow in rubles in 1977, compared to less than 7 percent in 1968. This trend reflects a major expansion of Soviet forces in the Sino-Soviet border region, including a doubling of the number of ground forces divisions and a fivefold increase in the tactical aircraft inventory. In addition to this expansion, however, a considerable portion of the resources devoted to forces opposite China was for

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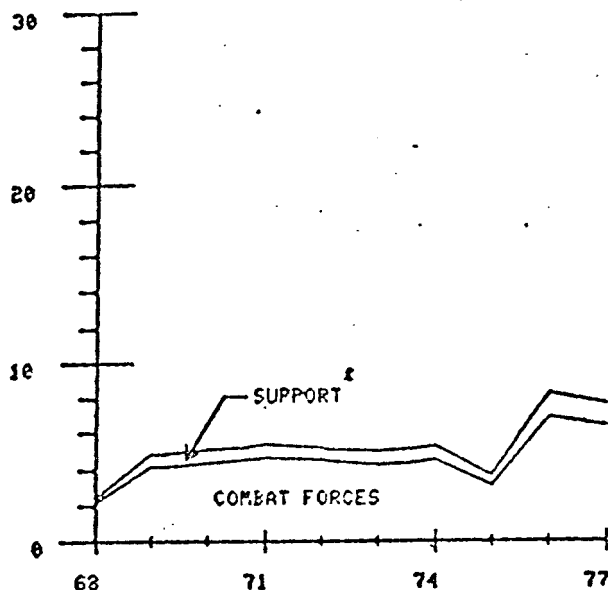
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Figure 1

Estimated Annual Resource Cost of Soviet Forces Opposite China

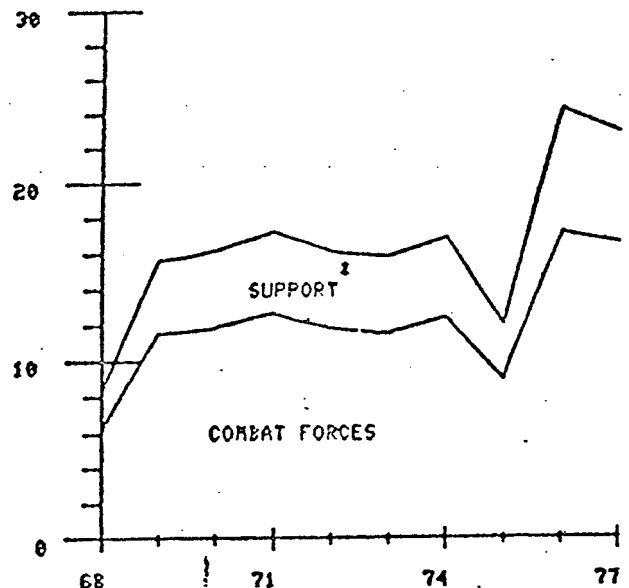
Ruble Spending

BILLION 1970 RUBLES



Estimated Dollar Cost

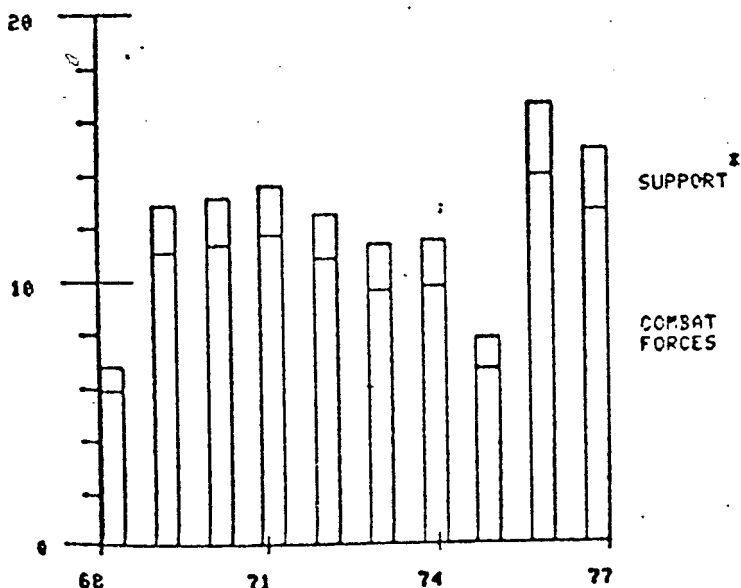
BILLION 1977 DOLLARS



Soviet Defense Activities Opposite China As A Share of Total Defense Activities

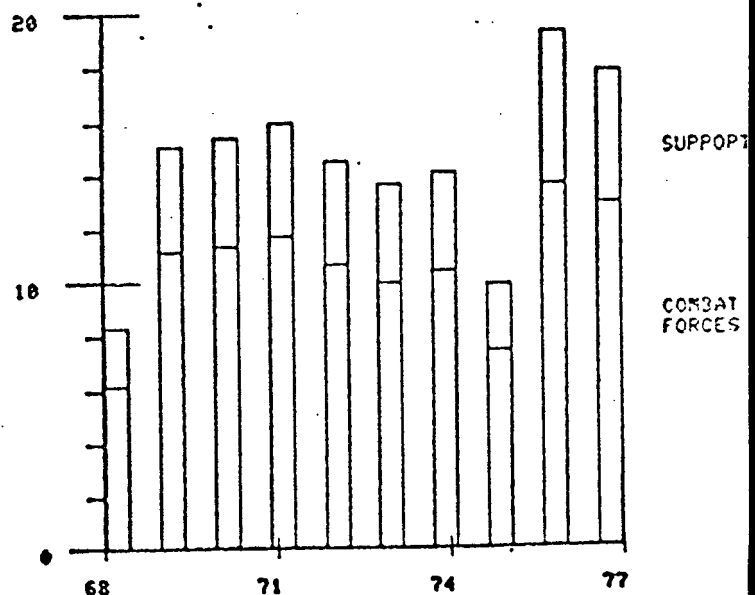
In Rubles

PERCENT



In Dollars

PERCENT



* The estimate for support costs is less certain than that for combat forces.

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modernizing the forces in connection with a general modernization program throughout the Soviet military establishment. For this reason, even in the unlikely event of a full Sino-Soviet rapprochement, we would not expect Soviet defense spending to be reduced by the full amount expended on the buildup of forces opposite China.

While the Soviets expended these resources, in large measure, in order to meet the threat from China, they comprise an element of overall Soviet military power, and could be redeployed for other purposes. However, the extent to which forces currently opposite China could be redeployed (for example, in a war with NATO) would be constrained by the Soviet need to maintain a credible force posture against China.

Allocations for Homeland Air Defense

Homeland air defense includes all interceptor aircraft and surface-to-air missiles (SAMs) subordinate to the Air Defense Forces (*PVO-Strany*). Although the Soviet air defense establishment is very large, during the 1973-1977 period, only about 7 percent of total defense spending in rubles was allocated to procurement and operation of homeland air defense forces. This is a relatively low share of expenditures by historical standards, primarily because of temporary downturns in procurement cycles for SAMs and aircraft. The estimated dollar cost of homeland air defense forces averaged almost \$8 billion per year, over 6 percent of the estimated dollar cost of total defense activities.* (About 20 percent of the resources devoted to homeland air defense--in either ruble or dollar terms--was for defense against Chinese air attack. These resources are also included in our estimate for forces opposite China.)

None of these data include RDT&E costs. RDT&E adds still more to the Soviet commitment of resources to air defense, but we are unable to isolate the portion of Soviet RDT&E costs allocated specifically to air defense.

Homeland air defense does not include tactical SAM systems integral to Soviet Ground Forces or fighters assigned to Soviet

* These figures include certain support costs that are omitted from the DPFC air defense category. Using the DPFC definition, homeland air defense resources comprised about 5 percent of total ruble spending for 1973-1977 and about \$5 billion, or less than 5 percent of the total estimated dollar cost of Soviet defense activities.

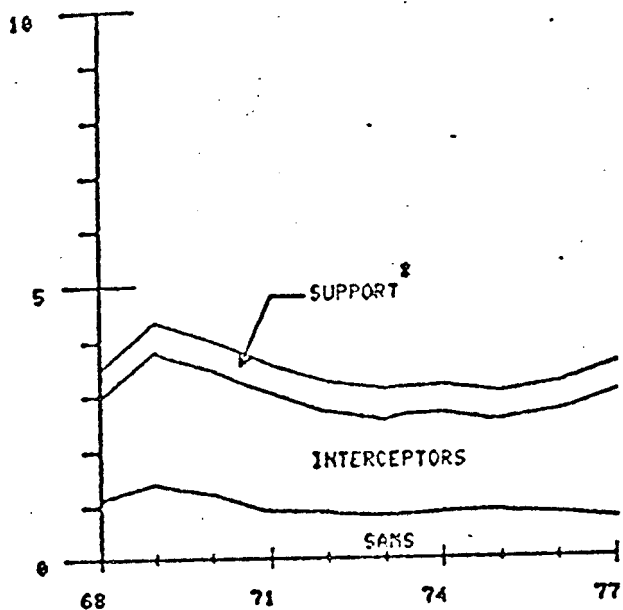
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Figure 2

Estimated Annual Resource Cost of Procurement and Operating Activities for Soviet Homeland Air Defense Forces

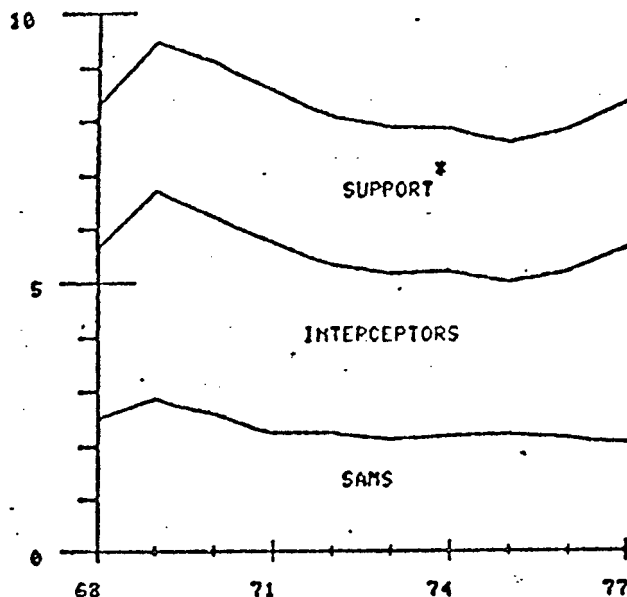
Ruble Spending

BILLION 1970 RUBLES



Estimated Dollar Cost

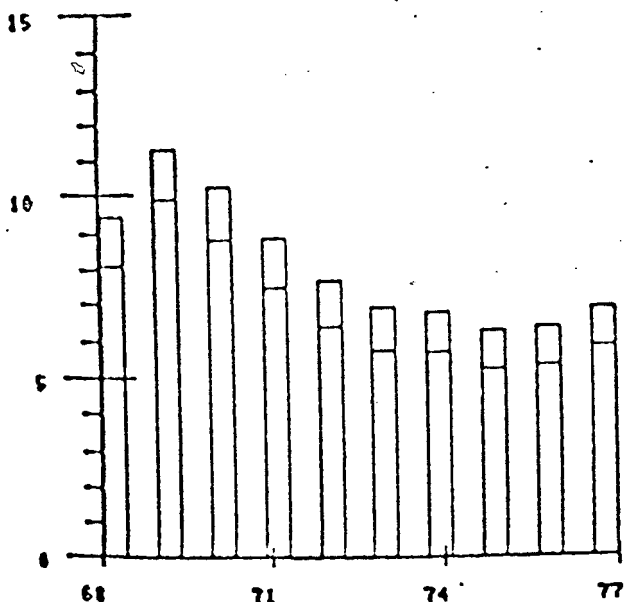
BILLION 1977 DOLLARS



Soviet Homeland Air Defense Activities As A Share of Total Defense Activities

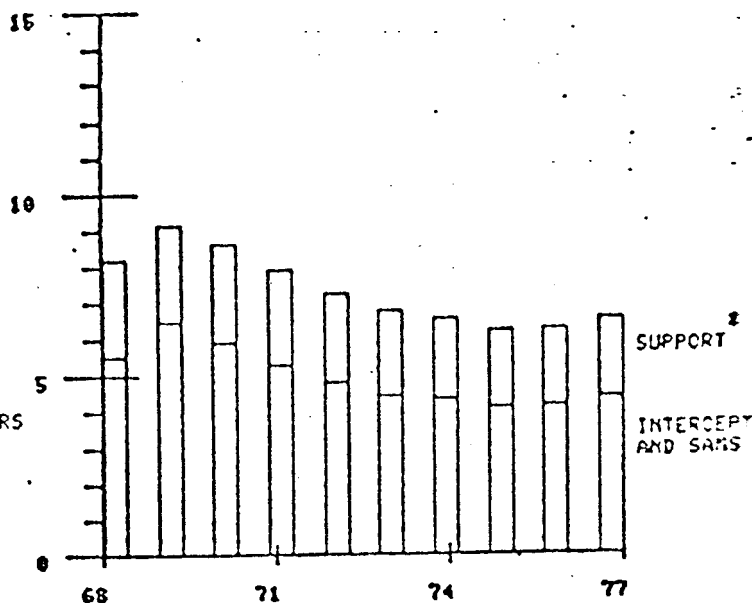
In Rubles

PERCENT



In Dollars

PERCENT



* These support costs represent additional air defense support resources not included in the DPPC. The estimate for these costs is less certain than those for other components

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Frontal Aviation. The primary mission of these SAMs and fighters has been support of the Ground Forces, but they have operated in exercises under the control of *PVO Strany* and under some circumstances could supplement homeland defenses. Less than one percent of Soviet defense spending in rubles during 1973-1977 went to tactical air defense SAMs. The estimated dollar cost of these SAM programs averaged about half a billion dollars each year.

Figure 2 displays the time trend in resource allocation to homeland air defense and its components--interceptors, SAMs and support. Resource commitment to these programs was relatively high during the 1968-1971 period, reflecting heavy procurement of the SA-5 SAM and Flagon and Foxbat aircraft. It declined during 1972 to 1975 with a decrease in procurement of SAMs and fighters. Spending has turned up again in the last two years primarily because of Flogger aircraft procurement. Over the decade the Soviets replaced almost 2,000 interceptors with newer, advanced models.

Control of Eastern Europe

We cannot quantify the proportion of Soviet defense resources devoted to control of the non-Soviet Warsaw Pact (NSWP) countries. We believe, however, that it is very small. The Soviets probably regard their forces in Eastern Europe (and those in Western USSR also) as contributing to control of the Pact countries by their presence alone.* In the past, Soviet military forces have been used directly for control on several occasions. They put down revolts in East Germany and Hungary in the early 1950s and invaded Czechoslovakia in 1968. However, we believe that the size and composition of Soviets forces in Eastern Europe during the period of this study has been dictated almost exclusively by requirements for war against NATO.

Since the 1960s, Soviet plans and exercises for war in Central Europe have called for a force of roughly 55 divisions, organized into three *fronts*, each attacking along a main strategic axis. In the early 1960s, this

*There are several other elements that, from the Soviet view, contribute to Moscow's control of Eastern Europe. These include Communist party controls, the Pact countries' economic dependence on the USSR, and the ever-present Soviet advisors and secret police agents.

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force was to be composed of Soviet forces in Eastern Europe, supplemented by forces moved forward from the USSR and a few NSWP divisions. By the late 1960s, the Soviets had modified their plans and, in order to lessen the requirement for reinforcement prior to war, accorded the NSWP forces a greater role in initial combat operations.. This basic strategy has continued to the present.

Today, there are 56 Warsaw Pact divisions in Central Europe, of which 27 are Soviet. In all Warsaw Pact exercises depicting armed conflict with NATO in the central region, all Soviet ground forces in Eastern Europe--including the 5 divisions in Czechoslovakia--are committed to the initial Pact offensive, as are all first-line East German, Polish, and Czechoslovak divisions. There is no evidence in exercises or in any other sources that the Soviets plan to withhold any of their forces in Eastern Europe from initial combat operations in order to control their NSWP allies.

Soviet forces passing through Eastern Europe from the USSR would share with the NSWP forces the task of safeguarding Soviet lines of communications to the front and could be diverted for control if necessary. However, we believe that if a major requirement for control operations arose, the Soviets would most likely employ reserve forces from among those mobilized in the USSR. Thus, some part of Soviet expenditures for training reservists and for stockpiling the equipment for mobilization forces might logically be categorized as related to control in Eastern Europe. However, even expenditures for training reservists and stockpiling equipment, which constitute a very small proportion of annual defense spending, are determined primarily by other factors.

Although the Soviets still distrust all six Pact allies in varying degrees, the Soviets view of requirements for war against NATO has led to the assignment of critical wartime roles to several of the NSWP countries. The Soviets seek to maintain the reliability of their NSWP allies through a variety of measures, one of which is the threat of military force. The contribution which Soviet forces make to control of Eastern Europe, however, entails little, if any, cost over and above that associated with maintaining an adequate military posture against NATO.

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Other Differences Between Soviet and US Defense Activities

There are other Soviet defense activities that arise from requirements or philosophies different from those of the United States. One example is the extensive Soviet civil defense program. We do not know the total cost of the Soviet civil defense effort. We have, however, estimated the cost of three major elements of the Soviet program: full-time civil defense personnel, operation of full-time civil defense units, and shelter construction. For the year 1976, we estimate Soviet expenditures for these elements to have been about 400 million rubles. The estimated cost of reproducing these activities in the United States is about \$2 billion. The estimates of total Soviet defense expenditures presented in this study omit all of the costs of the civil defense program except pay and allowances of uniformed military personnel engaged in civil defense (about 500 million dollars, or 40 million rubles).

The Soviets have two types of militarized security forces: Border Guards subordinate to the Committee for State Security (KGB) and Internal Security Troops subordinate to the Ministry of Internal Affairs (MVD). We include the costs of the Border Guards because these forces are organized and equipped as military units and have military tasks in time of war. We exclude the costs of MVD Internal Security Troops because they perform functions which are carried out in the United States by police forces.

The Soviets often employ military personnel in staff, support, research and other functions which in the United States would be performed by civilians. This practice does not have a significant impact on our estimates of Soviet defense resource allocation because these estimates reflect the costs of specific defense activities, regardless of whether military or civilian personnel carry them out. The Soviets also use some military personnel for solely civilian functions but we exclude the costs of these functions from our estimates.

Conclusion.

The Soviet allocations of defense resources to forces opposite China and homeland air defense, discussed above, took place in the context of a general increase in Soviet defense spending. Over the past five years, total Soviet defense spending in rubles has grown at an average annual rate of 4 to 5 percent. The estimated dollar cost of total Soviet defense activities has grown at an average annual rate of about 3 percent and exceeded total US defense outlays by about 35 percent over the 1973-1977 period. The

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estimated dollar cost of Soviet defense activities for 1977, some \$130 billion, was over 40 percent larger than the total US defense outlay of \$90 billion.*

Taken together, the resources allocated by the Soviets to forces opposite China and to homeland air defense comprised about 20 percent of the total estimated dollar cost of Soviet defense activities and about 18 percent of total defense spending in rubles over the 1973-1977 period.

These two categories are numerically equal to about two-thirds of the difference between the estimated dollar cost of Soviet defense activities and US defense outlays for 1973-1977.** Direct comparison of total US defense spending with the cost of Soviet defense activities, excluding homeland air defense and forces opposite China, however, does not provide a balanced measure of defense resource allocation. It does not account for the flexibility with which the Soviets can redeploy some of their forces or for categories of US defense spending which have no direct Soviet equivalent.

Moreover, such a simple numerical comparison obscures the fact that much of Soviet spending for these two sets of activities was for force modernization within the context of a general upgrading of Soviet military forces. Even if the Soviets had not perceived a threat from China, for example, we doubt that their defense spending would have been correspondingly smaller. It is likely that a considerable portion of the resources expended for forces opposite China would have been used to speed modernization of other strategic and general purpose forces.

**Data on US defense outlays include national security programs of DoD, the Department of Energy and the Department of Transportation. Outlays for pensions are excluded. The data are based on the DoD Five-Year Defense Program and the Budget of the United States Government. We have converted them to constant 1977 prices and to calendar year terms for purposes of comparison.*

***They do not, however, account for discrepancies between US and Soviet defense resource allocation in a number of important specific areas. For example, the estimated dollar cost of Soviet intercontinental attack programs during 1973-1977 was about \$40 billion, and exceeded comparable US outlays of some \$23 billion by about 75 percent. (Additional comparisons and analyses of trends in Soviet defense spending are detailed in Estimated Soviet Defense Spending: Trends & Prospects, SR 78-10121, June 1978, and A Dollar Cost Comparison of Soviet and US Defense Activities, 1967-1977, SR 78-10001, January 1978. Copies of these studies are attached.)*

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